Section 1: IDENTIFICATION

Product Name:	Commercially Formed Solid Elemental Sulphur
Synonyms:	STCC # 14-716-15; BCSN – Sulphur (formed, solid) Group – C CAS # 7704-34-9 (all elemental Sulphur); Sulphur, Brimstone.
Product Use:	Manufacture of Sulphuric acid, Chemicals and Fertilizers. For specific application advice, see appropriate Technical Data Sheet or consult our company representative.
Restrictions on Use:	Not available.
Manufacturer/Supplier:	Sultran Ltd. 600 Bow Valley Square 2 205 - 5th Avenue S.W. Calgary, Alberta T2P 2V7
Phone Number:	(403) 265-1486
Emergency Phone:	CANUTEC: (613) 996-6666; *666 (cellular)
Date of Preparation of SDS:	August 24, 2026

Section 2: HAZARD(S) IDENTIFICATION

GHS INFORMATION

Classification: Skin Irritation, Category 2

LABEL ELEMENTS

Hazard Pictogram(s):



Signal Word: Warning

Hazard Statements: H315: Causes skin irritation.

Precautionary Statements

Prevention: P264: Wash hands thoroughly after handling.
P280: Wear protective gloves, protective clothing and eye protection.

Response: P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P332 + P313: If skin irritation occurs: Get medical attention.
P362 + P364: Take off contaminated clothing and wash it before reuse.

Storage: Not applicable.

Disposal: Not applicable.

Hazards Not Otherwise Classified: Not applicable.

Ingredients with Unknown Toxicity: None.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Hazardous Products Regulations.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	Common name / Synonyms	CAS No.	% wt./wt.
Sulphur	Not available.	7704-34-9	100

Impurities / Stabilizing additives: Hydrogen sulphide (CAS No. 7783-06-4)

Section 4: FIRST-AID MEASURES

Inhalation:

If inhaled: Call a poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. This product may contain traces of Hydrogen sulphide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes. From 300 to 500 ppm, death can occur within minutes of continuous exposure. Above 500 ppm Hydrogen sulphide may cause instantaneous loss of consciousness and immediate death.

Eye Contact:

If in eyes: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. This product may contain traces of Hydrogen sulphide which may accumulate in confined spaces. Hydrogen sulphide may cause eye irritation at 1-20 ppm and acute conjunctivitis at higher concentrations. Above 50 ppm H2S, eye irritation may include symptoms of redness, severe swelling, tearing, sensitivity to light and the appearance of 'Halos' around lights.

Skin Contact:

If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion:

If swallowed: Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Sulphur may be converted into Hydrogen sulphide in the intestine.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Note to Physicians: Symptoms may not appear immediately. For inhalation of Hydrogen Sulphide, consider oxygen.

Section 5: FIRE-FIGHTING MEASURES

FLAMMABILITY AND EXPLOSION INFORMATION

Combusts slowly in air with pale flame which may be hard to see, especially in low humidity atmospheres. Flammable solid in powder form. Avoid contact with hot exhaust pipes and spark sources of ignition e.g. steel tracked vehicles. Does not meet criteria for classification as Class 4.1 Flammable Solids under TDG Regulations. When heated, this material may evolve toxic and flammable Hydrogen sulphide.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge: This material is sensitive to static discharge at temperatures at or above the flash point.

MEANS OF EXTINCTION

Suitable Extinguishing Media: Small Fire: Dry chemical, CO2, sand, earth, water spray or regular foam. Flood with water. Apply extinguishing media carefully to avoid creating airborne dust.

Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk.

Unsuitable Extinguishing Media: Not available.

Products of Combustion: Oxides of sulphur.

Protection of Firefighters: Fire may produce irritating and/or toxic gases. Contact may cause burns to skin and eyes. Runoff from fire control may cause pollution. Hydrogen sulphide is heavier than air and may collect in low lying areas and confined spaces. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Personal Precautions: Do not touch or walk through spilled material. Use personal protection recommended in Section 8. Keep away from heat, sparks and flame. Keep container closed (and grounded). Prevent dust accumulation (to minimize explosion hazard).

Environmental Precautions:	Prevent entry into waterways, sewers, basements or confined areas.
Methods for Containment:	Do not flush to sewer or allow to enter waterways.
Methods for Clean-Up:	Use explosion-proof equipment. Dust can be a fire or explosion hazard. Sweep up and shovel into suitable containers for disposal. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used.
Other Information:	See Section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE

Handling:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Avoid contact with skin and eyes. Do not swallow. Do not breathe dust. Handle and open container with care. Protect from moisture. When using do not eat or drink. Wash hands before eating, drinking, or smoking. See Section 8 for information on Personal Protective Equipment. Protect equipment against wet elemental Sulphur corrosion.

Storage:
Maintain adequate ventilation at all times. Head spaces in storage tanks may contain toxic Hydrogen sulphide gas. Keep product cool and dry. Keep away from sources of ignition. Avoid generation and accumulation of dust. Rotation of storage may minimize acidity build-up. Acid build-up can also lead to corrosive attack on metals and concrete structural materials. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines
Component

Sulphur [CAS No. 7704-34-9]

ACGIH: 10 mg/m³ (TWA) (Inhalable.); 3 mg/m³ (TWA) (Respirable.); For Particles (Insoluble or Poorly Soluble) Not Otherwise Specified

OSHA: 15 mg/m³ (Total dust) (TWA), 5 mg/m³ (Respirable fraction) (TWA); For Particulates Not Otherwise Regulated (PNOR).

Hydrogen sulphide [CAS No. 7783-06-4]

ACGIH: 1 ppm (TWA); 5 ppm (STEL); (2010)

OSHA: 20 ppm (C); 50 ppm (Peak) (Maximum duration: 10 mins. once only if no other meas. exp. occurs.)
10 ppm (TWA); 15 ppm (STEL) [Vacated]

TWA: Time-Weighted Average
STEL: Short-Term Exposure Limit
C: Ceiling

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits. Non-ferrous tools and non-ferrous fittings recommended. Minimize all potential for product coming in contact with high temperature sources.

Recognize corrosive properties of wet or moist elemental Sulphur even at neutral pH. Avoid use of copper. Minimize impact and abrasion when handling. Monitor and treat runoff for acidity.

PERSONAL PROTECTIVE EQUIPMENT (PPE)



Eye/Face Protection: Wear safety glasses. Indirect vented, dust-tight goggles are required if dust is generated when handling this product. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3:20 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

Hand Protection: Wear protective gloves. Consult manufacturer specifications for further information.

Skin and Body Protection: Wear protective clothing. Flame resistant clothing that meets the NFPA 2112 and CAN/CGSB 155.20-2017 standards is recommended in areas where material is stored or handled.

Respiratory Protection: If engineering controls and ventilation are not sufficient to control exposure to dust or Sulphur dioxide to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator with Acid Gas/P100 combination cartridge/filter, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low, if airborne concentrations exceed the limits of the air-purifying respirators or where Hydrogen sulphide is present or possibly present in confined spaces at hazardous levels.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Formed solid. Mixture of the following:

Spherical, or generally spherical particles, such as granules, pellets and prills;
Hemispherical;
Two dimensional slates or flakes.

NOTE: These forms of solid Sulphur are excluded from Class 4.1 under Schedule II, special provision 33(b), and are classified as Group “C” in the IMSBC Code (2025 edition, Incorporating Amendment 08-25).

Colour:	Bright yellow. Contamination may result in brown to black colour.
Odour:	Odorless when pure. Rotten eggs when Hydrogen sulphide present.
Odour Threshold:	0.00047 ppm, (Hydrogen sulphide) – rotten eggs 0.5 ppm (Sulphur dioxide) - acidic, pungent
Physical State:	Solid.
pH (1% solution in water):	2 to 4
Melting Point / Freezing Point:	112 to 119 °C (233.6 to 246.2 °F), depending on purity and molecular/ crystallographic form (changes with age).
Initial Boiling Point:	Not available.
Boiling Point:	444 °C (831.2 °F)
Flash Point:	207 °C (404.6 °F)
Evaporation Rate:	Not available.
Flammability:	May form combustible dust concentrations in air.
Lower Flammability Limit:	35 g/m³
Upper Flammability Limit:	1400 g/m³
Vapor Pressure:	0.11 mmHg at 140 °C (284 °F)
Relative Vapor Density:	Not available.
Relative Density:	1.92 to 2.07 (Water = 1)
Solubility:	Insoluble in water. Soluble in Carbon disulphide.
Partition Coefficient: n-Octanol/Water:	Not available.
Auto-ignition Temperature:	190 °C (374 °F) (Fine particulate dust cloud in air.)
Decomposition Temperature:	Not available.
Kinematic Viscosity:	Not applicable.
Percent Volatile, wt. %:	Not available.
VOC content, wt. %:	Not available.
Bulk Density:	1160 to 1270 kg/m³
Coefficient of Water/Oil Distribution:	Not available.
Particle Characteristics:	Not available.

Section 10: STABILITY AND REACTIVITY

Reactivity: Contact with incompatible materials. Sources of ignition. Exposure to heat.

Chemical Stability: Stable under normal storage conditions.

Possibility of Hazardous Reactions: Combined with moisture, Sulphur may form acidic / corrosive solutions. In the presence of moisture, iron, and oxygen, Sulphur has the capacity to form spontaneously combustible pyrophoric iron.

Conditions to Avoid: Contact with incompatible materials. Sources of ignition. Exposure to heat.

Incompatible Materials: Oxidizers. Alkali metals. Zinc. Halogens. Nitrates. Phosphorus. Ammonia.

Hazardous Decomposition Products: Hydrogen sulphide, Sulphur dioxide, and related oxides of sulphur may be generated upon combustion.

Section 11: TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE

Product Toxicity

Oral: > 8437 mg/kg (rat)

Dermal: Not available.

Inhalation: Not available.

Component Toxicity

Component	CAS No.	LD_{50} oral	LD_{50} dermal	LC_{50}
Sulphur	7704-34-9	> 8437 mg/kg (rat)	Not available.	Not available.
Hydrogen sulphide	7783-06-4	Not available.	Not available.	444 ppm (rat); 4H

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Blood. Cardiovascular system. Central nervous system.

Symptoms (including delayed and immediate effects)

Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. This product may contain traces of Hydrogen sulphide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes. From 300 to 500 ppm, death can occur within minutes of continuous exposure. Above 500 ppm Hydrogen sulphide may cause instantaneous loss of consciousness and immediate death.

Eye: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. This product may contain traces of Hydrogen sulphide which may accumulate in confined spaces. Hydrogen sulphide may cause eye irritation at 1-20 ppm and acute conjunctivitis at higher concentrations. Above

50 ppm H2S, eye irritation may include symptoms of redness, severe swelling, tearing, sensitivity to light and the appearance of 'Halos' around lights.

Skin: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Sulphur may be converted into Hydrogen sulphide in the intestine.

Skin Sensitization: Not available.

Respiratory Sensitization: Not available.

Medical Conditions Aggravated By Exposure: Not available.

EFFECTS OF CHRONIC EXPOSURE (from short and long-term exposure)

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Blood. Cardiovascular system. Central nervous system.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation. Prolonged overexposure to Sulphur dust can produce possible skin sensitization and permanent eye damage (clouding of the lens and chronic irritation). Prolonged inhalation can cause irritation of mucous membranes. Hydrogen sulphide may reduce lung function; cause neurological effects such as headaches, nausea, depression and personality changes; eye and mucous membrane irritation; and damage to cardiovascular system.

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens above reportable thresholds as listed by ACGIH, IARC, OSHA, or NTP.

Mutagenicity: Not available.

Reproductive Effects: Not available.

Developmental Effects

Teratogenicity: Not available.

Embryotoxicity: Not available.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Daphnia magna (Water flea, age <24 hr): EC50 >5000000 ug/L, 48-hr, freshwater, static; Effect: intoxication, immobilization;

Daphnia magna (Water flea, 1st instar larvae): EC50 = 3850000 ug/L, 96 hr, freshwater, static; Effect: intoxication, immobilization;

Americamysis bahia (Opossum Shrimp, age 24 hr): LC50 = 736000 ug/L, 96 hr (95% confidence interval: 646000-839000 ug/L), saltwater, static;

Lepomis macrochirus (Bluegill): LC50 < 14000 ug/L, 96 hr, freshwater, static;

Lepomis macrochirus (Bluegill, juvenile): LC50 > 180000 ug/L, 96 hr, freshwater, static;

Oncorhynchus mykiss (Rainbow trout): LC50 > 180000 ug/L, 96 hr, freshwater, static.

Persistence / Degradability: Solid Sulphur is biodegradable; microbiological reduction to Hydrogen sulphide or oxidation to acidic oxy-Sulphur species is possible. Both of these products can have environmental consequences. Reclamation of Sulphur rich wastes is preferred over solid waste disposal. Commercial Sulphur waste reclaimers are available. Disposal must be in a certified landfill site approved for the use of elemental Sulphur. Special simultaneous application of limestone normally required.

Bioaccumulation / Accumulation: Not anticipated to be bioaccumulative.

Mobility in Environment: Fugitive sulphur dust can be carried considerable distances from origin especially in low humidity and windy conditions. Prolonged exposure of soil and vegetation to such dust can be harmful.

Other Adverse Effects: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: TRANSPORT INFORMATION

Standard Transportation Commodity Code: **STCC #14-716-15**

U.S. Department of Transportation (DOT)

Proper Shipping Name: Not regulated.

Class: Not applicable.

UN Number: Not applicable.

Packing Group: Not applicable.

Placard(s): Not applicable.

Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name: Not regulated.

Class: Not applicable.

UN Number: Not applicable.

Packing Group: Not applicable.

Placard(s): Not applicable.

Marine Transport Information (IMO)

Marine Pollutant:	No.
IMO Classification - Marine Hazardous in Bulk:	No.
IMO Marpol V Classification:	Not harmful to the marine environment.

IMO/TDG/DOT/ICAO Classification of Sulphur as Class 4.1 does not apply to formed solid elemental Sulphur as defined in Section 9 of this SDS under "Physical State".

Special shipping information: When shipped in bulk keep well ventilated and cool. Minimize exposure to direct wind impact. If in open cars or trucks, stow below the gunwale. Do not expose to sources of high heat e.g. glowing cinders. If wetted, consider protection of container against corrosion effect. If corrosion occurs be prepared for auto-ignition of corrosion product when exposed to air. IATA limits on carriage of samples by air.

Section 15: REGULATORY INFORMATION

Chemical Inventories

US (TSCA)
The components of this product are in compliance with the chemical notification requirements of TSCA.

Canada (DSL)
The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

Mexico
This SDS has been prepared to meet the Mexican GHS standard NOM-018-STPS-2015.

Federal Regulations

United States
This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III

Component	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313	RCRA CODE	CAA 112(r) TQ (lbs.)
Hydrogen sulphide	500	100	100	313	U135	10000

State Regulations
Massachusetts
US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Component	CAS No.	RTK List
Sulphur	7704-34-9	Listed.
Hydrogen sulphide	7783-06-4	E

Note: E = Extraordinarily Hazardous Substance

New Jersey

US New Jersey Worker and Community Right-to-Know Act (New Jersey Statutes Annotated Section 34:5A-5)

Component	CAS No.	RTK List
Sulphur	7704-34-9	Listed.
Hydrogen sulphide	7783-06-4	SHHS

Note: SHHS = Special Health Hazard Substance

Pennsylvania

US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Component	CAS No.	RTK List
Sulphur	7704-34-9	Listed.
Hydrogen sulphide	7783-06-4	E

Note: E = Environmental Hazard

California

California Prop 65: This product does not contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16: OTHER INFORMATION

Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.

Date of Preparation of SDS: August 24, 2026

Version: 6.0

GHS SDS Prepared by: **Aegis Regulatory Inc.**

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